



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/582,669

06/12/2006

Kotaro Shima

128332

5007

25944 7590 11/03/2008  
OLIFF & BERRIDGE, PLC  
P.O. BOX 320850  
ALEXANDRIA, VA 22320-4850

EXAMINER

MACARTHUR, VICTOR L

ART UNIT

PAPER NUMBER

3679

MAIL DATE

DELIVERY MODE

11/03/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/582,669	<b>Applicant(s)</b> SHIMA, KOTARO	
	<b>Examiner</b> VICTOR MACARTHUR	<b>Art Unit</b> 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/20/2008</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, “not the deformation portion” (line 10 of claim 2; and line 11 of claim 2) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Art Unit: 3679

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Every element recited in the claims must be described in the written description with reference characters regarding the drawings; or those features must be deleted from the claims, in particular note the limitations “not the deformation portion” (line 10 of claim 2; and line 11 of claim 2)

### ***Claim Objections***

Claim 2 is objected to because of the following informalities:

- The phrase(s) “not the deformation portion” (line 10 of claim 2; and line 11 of claim 2) are not recited in the specification. Furthermore, it is unclear which drawing elements, if any, are represented by the above-mentioned phrases.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled

Art Unit: 3679

in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Note the following newly added limitations:

- “a ball seat configured to turn the ball stud” (lines 3-4 of claim 1).
- “a deformation portion of the ball seat configured to elastically deform the ball seat” (lines 6-7 of claim 1).
- “the inner and outer circumference of the ball seat configured to elastically deform the deformation portion” (lines 9-10 of claim 1).

Applicant has not pointed out where the newly added limitations are supported, nor does there appear to be a written description of the above limitations in the application as filed such that this newly added limitation constitutes new matter. Note that applicant's "ball seat", "deformation portion" and "inner and outer circumference" lack any movement causing feature (motor, etc.) such that it would be impossible for these elements to “turn the ball stud”, “deform the ball seat” and/or “deform the deformation portion” on their own. The "ball seat", "deformation portion" and "inner and outer circumference" are static elements that do not move unless acted upon (i.e., pushed, twisted, etc.) by some outside force. Claiming otherwise is contradictory to the original disclosure.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 3679

The claims are generally narrative and indefinite, failing to conform to current U.S. practice. They are replete with grammatical and idiomatic errors. Take for instance the following examples:

- It is unclear how the “ball seat” (line 3 of claim 1) could “turn the ball stud” (line 4 of claim 1). Applicant's ball seat, as shown in the drawings, lacks any movement causing feature (motor, etc.) such that it cannot cause any motion, turning motion, or otherwise. Does the applicant mean to recite that the ball seat supports the ball stud when the ball stud rotation of the ball stud?
- It is unclear how the “deformation portion of the ball seat” can “elastically deform the ball seat” in accordance with claim 1. Does the applicant mean to recite that the deformation portion is configured to deform in response under some circumstance? If so, what circumstance?
- It is unclear how the “inner and outer circumference of the ball seat” can “elastically deform the deformation portion of the ball seat” in accordance with claim 1.
- The term “the coefficient of friction between the outer circumference of the deformation portion and the socket” (lines 7-8 of claim 2) lacks proper antecedent basis.
- It is unclear what “the outer circumference of **not** the deformation portion” (lines 9-10 of claim 2) is meant to convey. Is applicant claiming a specific region not on the outer circumference such as the inner circumference? Is applicant claiming the outer circumference of everything except for the deformation portion? Neither seems to be supported in the drawings or spec.

Art Unit: 3679

- The term “the coefficient of friction between the inner circumference” (line 11 of claim 2) lacks proper antecedent basis.
- It is unclear what “the inner circumference of **not** the deformation portion” (lines 11-12 of claim 2) is meant to convey. Is applicant claiming a specific region not on the inner circumference such as the outer circumference? Is applicant claiming the outer circumference of everything except for the deformation portion? Neither seems to be supported by the drawings or spec.

For the reasons mentioned above a great deal of confusion and uncertainty exists as to the proper interpretation of the claim limitations. In accordance with the MPEP § 2173.06, rejection under 35 U.S.C. 102 or 35 U.S.C. 103 follows based on the examiner’s best understanding of the claim scope. The applicant is strongly urged to amend the entirety of the claims **(not only the examples listed above)** to conform to current U.S. practice.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Scheublein (U.S. Patent 3,524,664).

Claim 1. The prior art discloses all of applicant’s claimed structure as follows: A ball joint (Scheublein, fig.2) comprising: a ball stud (20, 21) having a spherical head portion (21) and

Art Unit: 3679

a shaft portion (20); and a socket (10) coupled with the spherical head portion of the ball stud via a ball seat (26, 31); the ball seat including: a deformation portion (31); and frictional engagement surfaces (30, 35) located on an inner and an outer circumference of the ball seat. Because the prior art discloses all of applicant's claimed structure as noted above, this prior art structure is presumed to be fully capable of performing applicant's functional limitations as follows (until applicant submits **evidence proving otherwise** in accordance with MPEP 2112.01):

- Applicant's claim fails to recite any specific structural configuration of the "ball seat", such that the prior art "ball seat" is presumed to be fully capable of functioning "to turn the ball stud in relation to the socket about the spherical center of the spherical head portion" in as much as applicant's own claimed "ball seat" is.
- Applicant's claim fails to recite any specific structural configuration of the "deformation portion", such that the prior art "deformation portion" is presumed to be fully capable of functioning "to elastically deform the ball seat in a rotational direction about the center axis of the shaft portion" in as much as applicant's own claimed "deformation portion" is.
- Applicant's claim fails to recite any specific structural configuration of the "inner and outer circumferences of the ball seat", such that the prior art "inner and outer circumferences of the ball seat" are presumed to be fully capable of functioning "to elastically deform the deformation portion of the ball seat in the rotational direction before the spherical head portion starts sliding in the rotational direction in relation to the deformation portion of the ball seat" in as much as applicant's own claimed "inner and outer circumferences of the ball seat" are.



Art Unit: 3679

Claim 2. The prior art appears to read on the applicant's claim 2 limitations as best as the claim can be understood by the examiner (see 112 second paragraph rejections above).

Claims 3 and 4. The prior art discloses wherein the deformation portion of the ball seat comprises a plurality of slits (slit in 31 receiving 35 and slits in 31 receiving threads of 26) formed in the ball seat.

***Allowable Subject Matter***

Claim 1 would be allowable if replaced with the following:

--A ball joint comprising:

a ball stud having a spherical head portion and a shaft portion; and

a socket receiving the spherical head portion therein; and

a ball seat having a hollow spherical resin element, a first annular resin element, a second annular resin element, and a plurality of slits formed through the spherical resin element and first annular resin element;

the spherical resin element disposed between the socket and head portion and having a top end with an opening receiving the ball stud therethrough and a bottom end supporting a bottom of the head portion, the spherical resin element allowing the ball stud to turn in relation to the socket about the spherical center of the head portion;

the first annular resin element disposed in the top end of the spherical resin element between the spherical resin element and the spherical head portion;

the second annular resin element disposed in the bottom end of the spherical resin element between the spherical resin element and the socket;

Art Unit: 3679

the first and second annular resin elements having a higher coefficient of friction than the spherical resin element such that rotation of the ball stud causes the spherical resin element to deform in a rotational direction about the center of the head portion before the spherical head portion starts sliding in the rotation direction in relation to the deformation portion of the ball seat.--

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new grounds of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 3679

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor MacArthur whose telephone number is (571) 272-7085.

The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

November 3, 2008

/Victor MacArthur/  
Primary Examiner, Art Unit 3679